

SECTION TWO – ENGINEERING AND DESIGN SERVICES

Chapter 7 INVESTIGATIONS AND ENGINEERING STUDIES

A. General

This chapter defines the procedures, standards and submission criteria for Site Investigations required by the Statement of Work in support of the project design. It also outlines general procedures for other specific investigations, engineering studies and engineering services that may also be required in the Statement of Work.

These include for all contracts:

- Site Investigation

And, if specifically required in the SOW, the following investigations or surveys:

- Geotechnical
- Surveying and mapping
- Hydrographic surveys
- Hazardous Materials Surveys

And/or studies:

- Seismic Analysis and FEMA Studies
- Energy Analysis
- Wave Studies
- Master Planning
- Homeporting Studies

And/or miscellaneous engineering services:

- Permit Support
- Detailed furniture design and procurement services
- Value Engineering Services
- Models and Renderings

B. Site Visit Procedures and Protocol

All site visits shall be coordinated with EIC and Benefiting Unit personnel. During the execution of site investigation work, the A/E shall be responsible for obtaining necessary permits and complying with all applicable laws, codes and regulations, including OSHA regulations. The A/E shall be responsible for all damages to persons or property which occur as a result of the A/E's fault or

negligence. The A/E shall take proper safety precautions to protect the public, the property of the public and the Government from physical hazards and unsafe conditions. Upon completion of the site investigation, the A/E shall return the property to its original conditions except as released in writing by the KO.

C. Site Investigations (All Contracts)

1. General.

The A/E shall obtain site data and investigate existing site conditions, utilities and facilities, as necessary, to properly integrate design of the Project with existing site conditions. Except as otherwise contracted, site investigation shall include complete and accurate field investigation, topographic survey and verification of location and availability of utility and drainage systems. Existing as-built record drawings, when available, will be furnished by the Coast Guard for information; however, the A/E shall be responsible for field verifying as-built drawings and other site features which may influence the design of the Project.

The A/E shall photograph and study the surrounding built and un-built environment for purposes of providing compatible design. The A/E shall submit with the first design submittal a photographic record of existing site conditions and prominent facilities adjacent to the project site that will influence the architectural design of the project.

In the event that a "Lead Survey" is not required as a deliverable, the A/E shall make a lead-based paint probability assessment of all existing facilities being demolished, repainted, or altered as part of this Project. The assessment shall be based on building age, construction document records at the activity, and visual observations. The assessment shall determine the location, condition, and quantity of all materials suspected of containing lead-based paint. The A/E shall exercise due care in accordance with OSHA standards. The results of the assessment shall be included in the Narrative/Basis of Design.

The A/E shall submit to the PM a brief report of each site investigation visit. The report shall include the names of personnel contacted, a brief synopsis of the findings of the visit, and a list of problems encountered during the site investigation including areas requiring further investigation (such as suspected hazardous materials) not currently within the A/E contract.

2. Deliverables

Deliverables, as discussed above, shall include the following:

- Photographic Record of the site
- Lead Probability Assessment
- Site Investigation Report

D. Other Investigations, Studies or Services

1. General

The A/E may be retained to complete other investigations such as:

- Geotechnical investigations. Including the sampling and analysis of soil borings. See Appendix G.1 for the Scope of Work.
- Surveying and mapping. Including topographic and utility field surveys and production of appropriate site plans/maps. See Appendix G.2 for the Scope of Work.
- Hydrographic surveys. Including bottomland site surveys and production of appropriate plans/maps. See Appendix G.3 for the Scope of Work.
- Hazardous Materials Surveys. Including lead and asbestos surveys. See Appendices G.4 and G.5 for Scopes of Work.
- Seismic Analysis and FEMA Studies. Including the investigation and analysis of existing structures for compliance with current seismic building requirements. See specific requirements within the project specific Statement of Work.
- Energy Analysis. Analysis of existing structures and/or new facilities for compliance with local codes and/or Coast Guard energy criteria. See specific requirements within the project specific Statement of Work.
- Wave Studies. Investigation and analysis of wave or tidal forces on existing or proposed marine structures. See specific requirements within the project specific Statement of Work.
- Master Planning. Planning of the long term development of multi-building and /or campus facilities. See specific requirements within the project specific Statement of Work.
- Homeporting Studies. Site selection studies for potential locations for ships and/or facilities. See specific requirements within the project specific Statement of Work.
- Permit Support. Preparation of permitting plans and/or submissions. See Appendix G.6 for the Scope of Work.